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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/760,487	01/21/2004	Peter Randall	71048.0168	9790

7590

04/26/2005

James P. Calve
Dickinson Wright PLLC
1901 L. St., N.W., Suite 800
Washington, DC 20036

EXAMINER

WRIGHT, ANDREW D

ART UNIT	PAPER NUMBER
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3617

DATE MAILED: 04/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/760,487	Applicant(s) RANDALL, PETER	
	Examiner Andrew Wright	Art Unit 3617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 March 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14 and 16-50 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) 14 and 16-25 is/are allowed.
6) ☒ Claim(s) 26-50 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 26-50 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Claim 26 recites "treating said wastewater to meet applicable regulatory standards" in line 4. This renders the claim indefinite. The standards are not defined in the claim or the specification. Even if the standards were defined, any such standard is subject to change, thereby potentially changing the scope of the claim. Accordingly, it is impossible to determine the metes and bounds of the intended claim coverage. Thus the claim is indefinite. Claims 27-43 depend from claim 26 and are rejected for the same reasons.
4. Furthermore, claims 32 and 40-43 have a further recitation regarding "applicable ... regulatory requirements". It is unclear if this is the same as the "regulatory standards" recited in claim 26.
5. Claims 44 and 50 also recite "applicable regulatory standards" and are rejected for the same reason as claim 26. Claims 45-49 depend from claim 44.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 3617

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 26, 29, 32, 33, 34, 35, 40, 41, 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Husain et al. (US 6,361,695) in view of Tyllila (US 6,638,420) and Wipperman (US 6,672,233). Husain discloses a shipboard wastewater treatment system that uses collection tank (6), treatment via filtering in a bioreactor (30), treatment via decontamination using UV light in disinfection unit (70), and recirculation of treated wastewater. Husain discloses storing the treated wastewater in sump tank (80), then dumping it as treated effluent. Tyllila teaches that there are times when treated wastewater can be discharged directly to the sea or other receiving facility and no temporary storage tank is required (column 1, lines 35-40 and column 3, lines 57-59). Tyllila also teaches that sometimes the treated wastewater cannot be immediately discharged and a temporary storage tank is needed (column 4, lines 8-11). Tyllila does not place any criticality upon the storage tank, and teaches that it can be at some other location on the vessel (column 1, lines 35-40). Wipperman teaches that ballast tanks that normally hold drinking water or sea water can also be used to hold waste water (column 6, lines 50-52). Based upon the teaching of Tyllila and Wipperman, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Husain by sending the treated waste water from sump tank (80) to a ballast tank. The motivation would be to store treated wastewater until it can be properly discharged. There is necessarily some structure that the water passes

Art Unit: 3617

through when it is discharged from the ballast tank. This structure constitutes a discharge unit.

8. Still regarding claim 26, Husain in view of Tyllila and Wipperman does not explicitly teach the recited method steps. The method steps, however, are inherent in the use of the modified system. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to devise the recited method steps. The motivation would be to make and use the modified Husain system. Furthermore it would have been obvious to treat the wastewater to meet applicable regulatory standards before discharging. The motivation would be to comply with local, state, and/or federal laws and regulations.

9. Claims 27, 28, 30, 31, 41, 44-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Husain in view of Tyllila and Wipperman as applied to claim 26 above, and further in view of Tompkins et al. (US 5,932,091). Husain discloses recirculation of treated effluent. Husain does not disclose testing and re-treating based upon test results. Tompkins shows a shipboard wastewater treatment system. The system treats wastewater by filtration. After the treatment, the effluent is monitored for contaminant levels. If the contaminant level is above a certain amount, the effluent is diverted back to the beginning for re-treatment. This is common and well known in the art. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify Husain by adding testing and conditional re-treatment if the treated wastewater does not meet predetermined thresholds. The motivation would be to ensure that the wastewater is properly treated and in compliance

Art Unit: 3617

with applicable laws and regulations before it is dumped. It is well known and common to take samples for the purpose of testing. It is obvious to treat according to laws and regulations if such exist.

10. Husain in view of Tyllila and Wipperman and Tompkins, as described above, contains the structural elements of claims 44-46. Husain discloses a disinfection unit (70). Tompkins discloses a monitoring unit for testing treated wastewater. Husain discloses the use of pumps and a pump would be necessary for the recirculation. The ship will necessarily have some type of seawater ballast system, whether it be ballast tanks and pumps or a simple bilge. Tompkins discloses monitoring and sensing, and a sensor or monitor necessarily requires some port for obtaining or sensing a sample. Husain discloses ultraviolet treatment.

Allowable Subject Matter

11. Claims 14-25 are allowed.

Response to Arguments

12. Applicant's arguments with respect to claims 26-50 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tipton (US 5,208,461) discloses a wastewater treatment system that uses UV disinfection to treat wastewater to meet or exceed applicable regulatory standards.

14. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

15. Any inquiry concerning this communication should be directed to examiner Andrew D. Wright at telephone number 571-272-6690. The examiner can normally be reached Monday-Friday from 9:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, S. Joe Morano, can be reached at 571-272-6684. The fax number for official communications is 703-872-9306. The fax number directly to the examiner for unofficial communications is 571-273-6690.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

Application/Control Number: 10/760,487

Page 7

Art Unit: 3617

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Andrew D. Wright
Patent Examiner
Art Unit 3617

ANDREW D. WRIGHT
PRIMARY EXAMINER

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